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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/682,024	07/11/2001	Noboru Kamijo	JP920000131US1	2679

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Ido Tuchman
69-60 108th Street
Suite 503
Forest Hills, NY 11375

EXAMINER

LESERANCE, JEAN E

ART UNIT PAPER NUMBER

2674

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/682,024

Applicant(s)

KAMIJO ET AL.

Examiner

Jean E Lesperance

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-14,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8, 10-14, 17, and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 11/12/04
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The appeal Brief filed on 1/18/2005 is received and prosecution is reopened with claims 1, 3-8, 10-14, 17, and 18 pending.

Drawings

2. This application, filed under former 37 CFR 1.60, lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes. When the application is allowed, applicant will be required to submit new formal drawings. In unusual circumstances, the formal drawings from the abandoned parent application may be transferred by the grant of a petition under 37 CFR 1.182.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 11-14 and 17 are rejected under 35 U.S.C. 102(b) as being unpatentable over US Patent 5,661,506 by Lazzouni et al.

Regarding claim 1, Lazzouni et al. teach a video display Fig.11 (162) which inherently includes a display controller for controlling display position of the pointer on the display screen as seen in (Fig.1); the recording/processing unit included a

computer for processing the image signals to obtain position information, for recording the position information and for controlling communication with a host computer, a memory for storing the position information and a communication link for communicating with the host computer (column 4, lines 37-42) corresponding to a displacement detector for detecting a displacement of device itself; the moving tip Fig.1 (18) moving on the on the encoder paper (14) and at the same time moving on the display screen also as seen on the display of the recording /processing unit (20) where it can be seen the writing tip moves on the display and recording/processing includes an image system (24) corresponding to the image sensor which senses the pen device moving to different positions on the encoder paper and display corresponding to a pointer moving device for moving the pointer on the display screen based on the detected displacement of the device itself wherein the displacement detector comprising an image sensor, wherein an image sensed by the image sensor is processed to obtain displacement of the device itself.

Regarding claim 11, Lazzouni et al. teach an image system Fig.1 (24) which detects the movement of the writing tip (18) corresponding to a first step of using an image sensor an image physical object facing the device continuously and detecting a relative displacement between the taken object and the display; and writing tip Fig.1 (18) corresponding to a second step for changing a display position of the pointer displayed on the display based on the detected displacement.

Regarding claim 12, Lazzouni et al. teach as the pen passes over the pattern of pixels and provides image signals to the computer, the computer analyzes the image

signals to determine the coordinates of the pen positions and stores the coordinates of the pen positions in the memory (column 4, lines 44-50) corresponding to calculating a motion vector at a certain place in an image based on the movement of the image that was taken multiple times and obtaining a relative displacement between the object and the display based on the calculated motion vector.

Regarding claim 13, Lazzouni et al. teach the absolute positions of the writing tip 18 on the surface of paper 14 are determined from images of a pattern of prerecorded pixels associated with the surface of paper 14. Image signals representative of images of the pixels are transmitted through the cable 16 to recording/processing unit 20, where the image signals are processed to obtain position information (column 5, lines 3-10) where the sign is inherently inverting between the visible markings (12) and the display of the recording/processing unit (20) corresponding to when moving the device relative to the object relative displacement between the object and the display is obtained by inverting a sign of the motion vector.

Regarding claim 14, Lazzouni et al. teach two-dimensional input devices for inputting handwritten data and text, sketching and drawing into a host computer are relatively well known. Most of these applications require the transfer, in real time, of a pen or stylus position on a tablet to a host computer for storage, processing or display. In these applications, it is desirable to have both a handwritten record of the activity and a record in a memory (column 1, lines 13-19) corresponding to generating a time-series moving pattern of a certain place based on a position of the certain place in a principal image and a position of a place corresponding to the certain place in a

plurality of other images that were taken apart in time from the principal image; and Each pen position is checked to determine if it is on the printed area of the paper. The pen tip can be off the paper but the camera can capture a valid image, since the camera is offset from the pen tip. In this event, the above algorithm determines the exact pen tip location with respect to the rotation angle and the image. This location is compared with the dimensions of the printed area on the paper. If the location coordinates are greater than the dimensions of the printed area, the pen tip is off the paper but the camera is obtaining a valid paper pixel (column 13, lines 1-10) corresponding to comparing the generated time-series moving pattern with a plurality of model patterns registered in advance to select a most approximate model pattern; the CCD video camera has rectangular pixels, the features in the image appear as rectangles. The aspect ratio is determined in step 224 by calculating how many CCD pixels are located between the centers of two horizontally and vertically adjacent paper pixels. The horizontal position of each cluster is corrected with this ratio. Before changing the previous value, it is stored in a separate buffer to be used for displaying the original image (column 10, lines 48-55) corresponding to wherein the second step comprising the steps of changing a display position of the pointer based on a moving pattern that was defined for the selected model pattern.

Regarding claim 17, Lazzouni et al. teach an image system Fig.1 (24) which a part of the display of the recording/processing unit (20) corresponding to the image sensor is located in a part of the display screen.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-6 are rejected under 35 USC 103 (a) as being unpatentable over US Patent # 5,661,506 by Lazzouni et al. in view of US Patent # 5,502,568 by Owaga et al.

Regarding claim 3, Lazzouni et al. teach an image system Fig.1 (24) corresponding to the image sensor. The prior art teaches all the claimed limitations as recited in claim 1 with the exception of providing a complementary metal-oxide semiconductor or a charge coupled device. However, Owaga et al. teach a CCD area image sensor Fig.9 (53) is disposed in the inside of the photodetector 51. It would have been obvious to utilize the CCD as taught by Owaga in the pen information recording system disclosed by Lazzouni because this would provide an optical position detecting unit including a light beam direction detecting section capable of detecting the direction of incidence of light with high accuracy without using optical lenses.

Regarding to claim 4, Owaga et al teaches an infrared light-emitting element is used as the light-emitting element 19, the filter 24 functions as an infrared light transmission filter (column 7, lines 39-42) corresponding to the image sensor comprising an infrared sensor.

Regarding claim 5, Owaga et al. teach a human hand Fig.9 (54) corresponding to an operator for activating the image sensor.

Regarding claim 6, Owaga et al. teach a human hand Fig.9 (54) includes light sources 55 and 56 (functions) corresponding to the function for directing a selection of an object pointed to by the pointer or for the execution of predetermined processing defined for the object whereby the operator plurality of functions.

5. Claim 7 is rejected under 35 USC 103 (a) as being unpatentable over US Patent # 5,661,506 by Lazzouni et al. in view of US Patent # 6,369,803 by Brisebois et al.

Regarding claim 7, Lazzouni et al. teach an image system Fig.1 (24) corresponding to the image sensor. Accordingly, the prior art teaches all the claimed limitations as recited in claim 7 with the exception of providing that the device is a wristwatch type. However, Brisebois et al. teach active edge user interface 100 can be used in a wristwatch, which may require altering the shape and size of display 110 and input device 120 (column 3, lines 27-30), (see Fig.1). It would have been obvious to utilize the user interface 100 as taught by Brisebois in the pen information recording unit disclosed by Lazzouni et al. because this would provide a device that includes dynamically configurable flexible touch areas located near the perimeter of a display to support interactive communication between a user and a user environment.

6. Claims 8, 10 and 18 are rejected under 35 USC 103 (a) as being unpatentable over US Patent # 6,369,803 by Brisebois et al. in view of US Patent # 5,661,506 by Lazzouni et al.

Regarding claim 8, Brisebois et al. teach a display for displaying a screen Fig.1 (110); a case for supporting the display Fig.1 (100); active edge user interface 100 can be used in a wristwatch, which may require altering the shape and size of display 110 and input device 120 (column 3, lines 27-30), (see Fig.1) where a wristwatch is inherently includes a belt attached which would attached to the display (100) corresponding to an attached belt attached to the case; a touch sensor mounted in the case or the attached belt performing a predetermined operation on an object displayed on the screen, wherein the touch sensor is provided on both sides of the display Fig.1 (120). Accordingly, the prior art teaches all the claimed limitations as recited in claim 8 with the exception of providing an image sensor. However, Lazzouni et al. teach an image system that detects the writing tip (18) displacement on the visible markings (12) as well as on the display of the recording/processing unit (20) corresponding to an image sensor wherein an image sensed by the image sensor is processed to obtain a displacement of the device itself. It would have been obvious to utilize the image system as taught by Lazzouni in the active edge user interface disclosed by Brisebois because this would achieve an information recording apparatus for use with paper having a prerecorded pattern of pixels associated with a writing surface.

Regarding claim 10, Lazzouni et al. teach a image system Fig.1 (24) which detects the movement of the writing tip (18) corresponding to displacement detection section for detecting a displacement of the display; and pointer position changing device for changing a display position of a pointer based on the detected results, thereby moving the pointer displayed on the screen Fig.1 (18).

Regarding claim 18, Lazzouni et al. teach an image system Fig.1 (24) which a part of the display of the recording/processing unit (20) corresponding to the image sensor is located in a part of the display screen.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Lesperance whose telephone number is (571) 272-7692. The examiner can normally be reached on from Monday to Friday between 8:00AM and 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard, can be reached on (571) 272-7603.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal drive, Arlington, VA, Sixth Floor (Receptionist).


Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Jean Lesperance

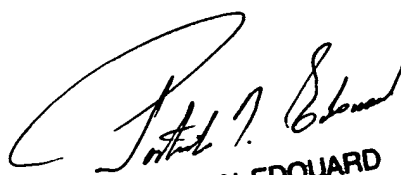
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Date 3/29/2005

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PATRICK N. EDOUARD
PRIMARY EXAMINER